

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer					
Product line	: NEMA Premium Efficiency Three-Phase	Product code	: 11408847		
		Catalog #	: 35012ET3GRB449T-W22		
Frame	: L447/9T	Cooling method	: IC411 - TEFC		
Insulation class	: F	Mounting	: F-1		
Duty cycle	: Cont.(S1)	Rotation ¹	: Both (CW and CCW)		
Ambient temperature	: -20°C to +40°C	Starting method	: Direct On Line		
Altitude	: 1000 m.a.s.l.	Approx. weight ²	: 3651 lb		
Protection degree	: IP55	Moment of inertia (J)	: 278 sq.ft.lb		
Design	: A				
Output [HP]	350	300	300	300	300
Poles	6	6	6	6	6
Frequency [Hz]	60	50	50	50	50
Rated voltage [V]	460	380	400	415	415
Rated current [A]	415	420	409	404	404
L. R. Amperes [A]	2864	2730	2945	3192	3192
LRC [A]	6.9x(Code H)	6.5x(Code G)	7.2x(Code H)	7.9x(Code J)	7.9x(Code J)
No load current [A]	160	157	172	185	185
Rated speed [RPM]	1190	990	990	990	990
Slip [%]	0.83	1.00	1.00	1.00	1.00
Rated torque [ft.lb]	1540	1590	1590	1590	1590
Locked rotor torque [%]	250	220	250	280	280
Breakdown torque [%]	270	250	280	300	300
Service factor	1.15	1.00	1.00	1.00	1.00
Temperature rise	80 K	80 K	80 K	80 K	80 K
Locked rotor time	41s (cold) 23s (hot)	45s (cold) 25s (hot)	39s (cold) 22s (hot)	34s (cold) 19s (hot)	34s (cold) 19s (hot)
Noise level ²	71.0 dB(A)	70.0 dB(A)	70.0 dB(A)	70.0 dB(A)	70.0 dB(A)
Efficiency (%)	25%	95.3	95.3	95.3	94.5
	50%	95.4	95.4	95.4	95.0
	75%	95.8	95.8	95.8	95.4
	100%	95.8	95.8	95.8	95.8
Power Factor	25%	0.42	0.44	0.40	0.37
	50%	0.66	0.68	0.64	0.60
	75%	0.77	0.78	0.75	0.73
	100%	0.82	0.83	0.81	0.79
Bearing type	: Drive end : NU-322 C3	Non drive end : 6319 C3	Foundation loads		
Sealing	: WSeal	WSeal	Max. traction	: 10901 lb	
Lubrication interval	: 7000 h	13000 h	Max. compression	: 14553 lb	
Lubricant amount	: 60 g	45 g			
Lubricant type	: Mobil Polyrex EM				
Notes					
This revision replaces and cancel the previous one, which must be eliminated. (1) Looking the motor from the shaft end. (2) Measured at 1m and with tolerance of +3dB(A). (3) Approximate weight subject to changes after manufacturing process. (4) At 100% of full load.			These are average values based on tests with sinusoidal power supply, subject to the tolerances stipulated in NEMA MG-1.		
Rev.	Changes Summary		Performed	Checked	Date
Performed by					
Checked by				Page	Revision
Date	13/04/2022			1 / 21	

TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage



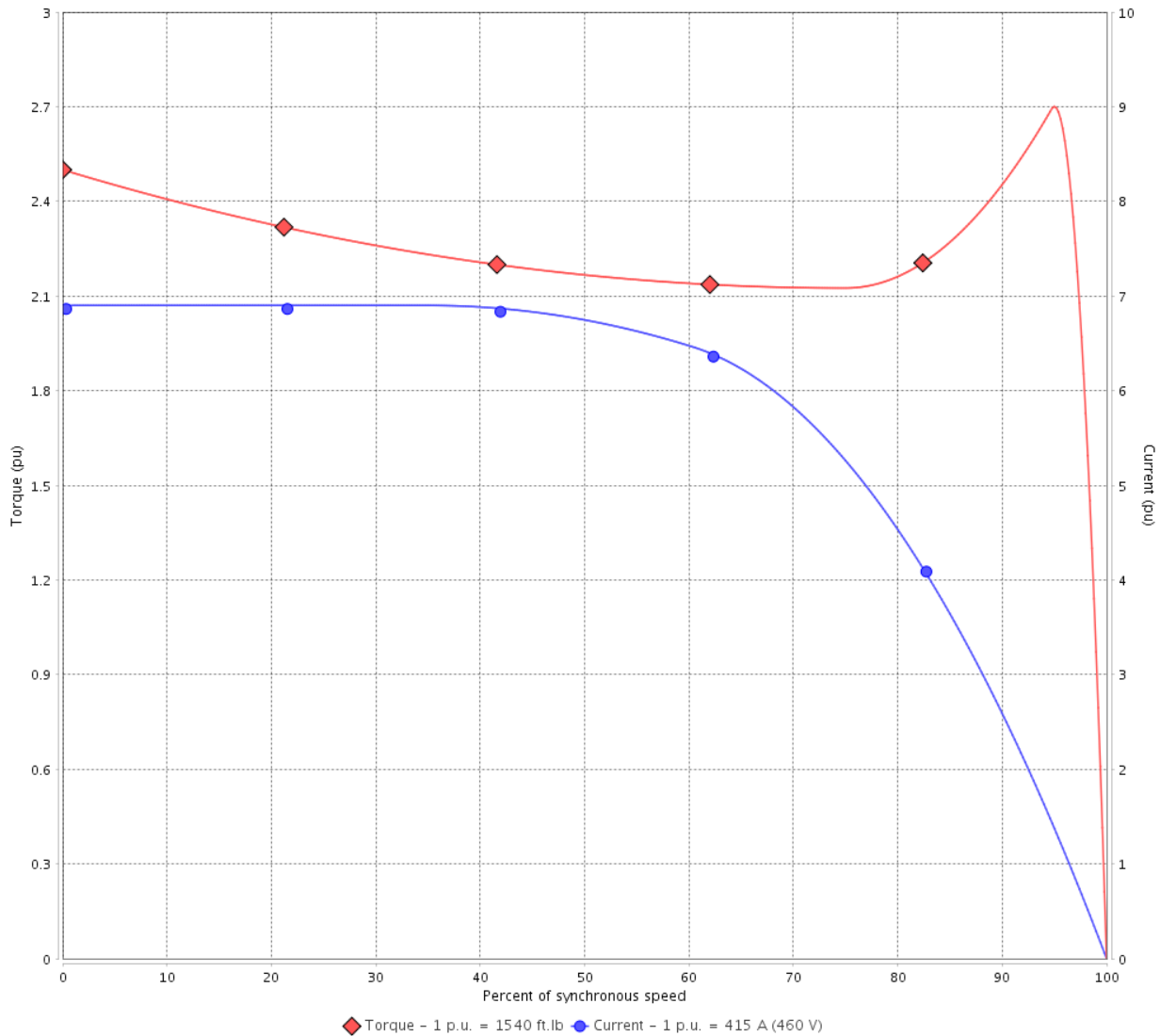
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 11408847

Catalog # : 35012ET3GRB449T-W22

TORQUE AND CURRENT VS SPEED CURVE



Performance : 460 V 60 Hz 6P

Rated current	: 415 A	Moment of inertia (J)	: 278 sq.ft.lb
LRC	: 6.9	Duty cycle	: Cont.(S1)
Rated torque	: 1540 ft.lb	Insulation class	: F
Locked rotor torque	: 250 %	Service factor	: 1.15
Breakdown torque	: 270 %	Temperature rise	: 80 K
Rated speed	: 1190 rpm	Design	: A

Locked rotor time : 41s (cold) 23s (hot)

Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page 2 / 21	Revision
Checked by				
Date	13/04/2022			

TORQUE AND CURRENT VS SPEED CURVE



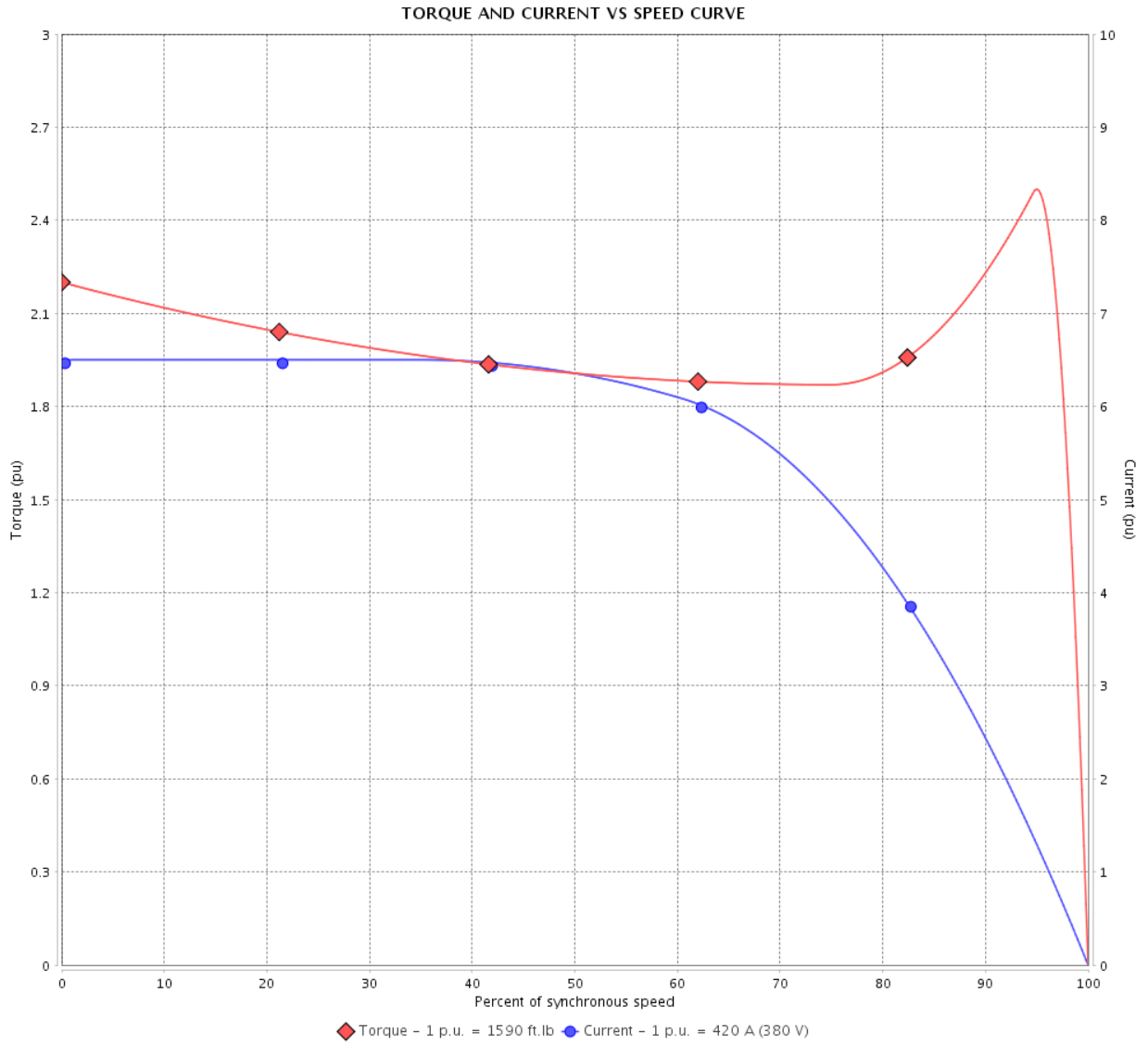
Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 11408847

Catalog # : 35012ET3GRB449T-W22



Performance : 380 V 50 Hz 6P IE3

Rated current : 420 A
 LRC : 6.5
 Rated torque : 1590 ft.lb
 Locked rotor torque : 220 %
 Breakdown torque : 250 %
 Rated speed : 990 rpm

Moment of inertia (J) : 278 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : A

Locked rotor time : 45s (cold) 25s (hot)

Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page 3 / 21	Revision
Checked by				
Date	13/04/2022			

TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage



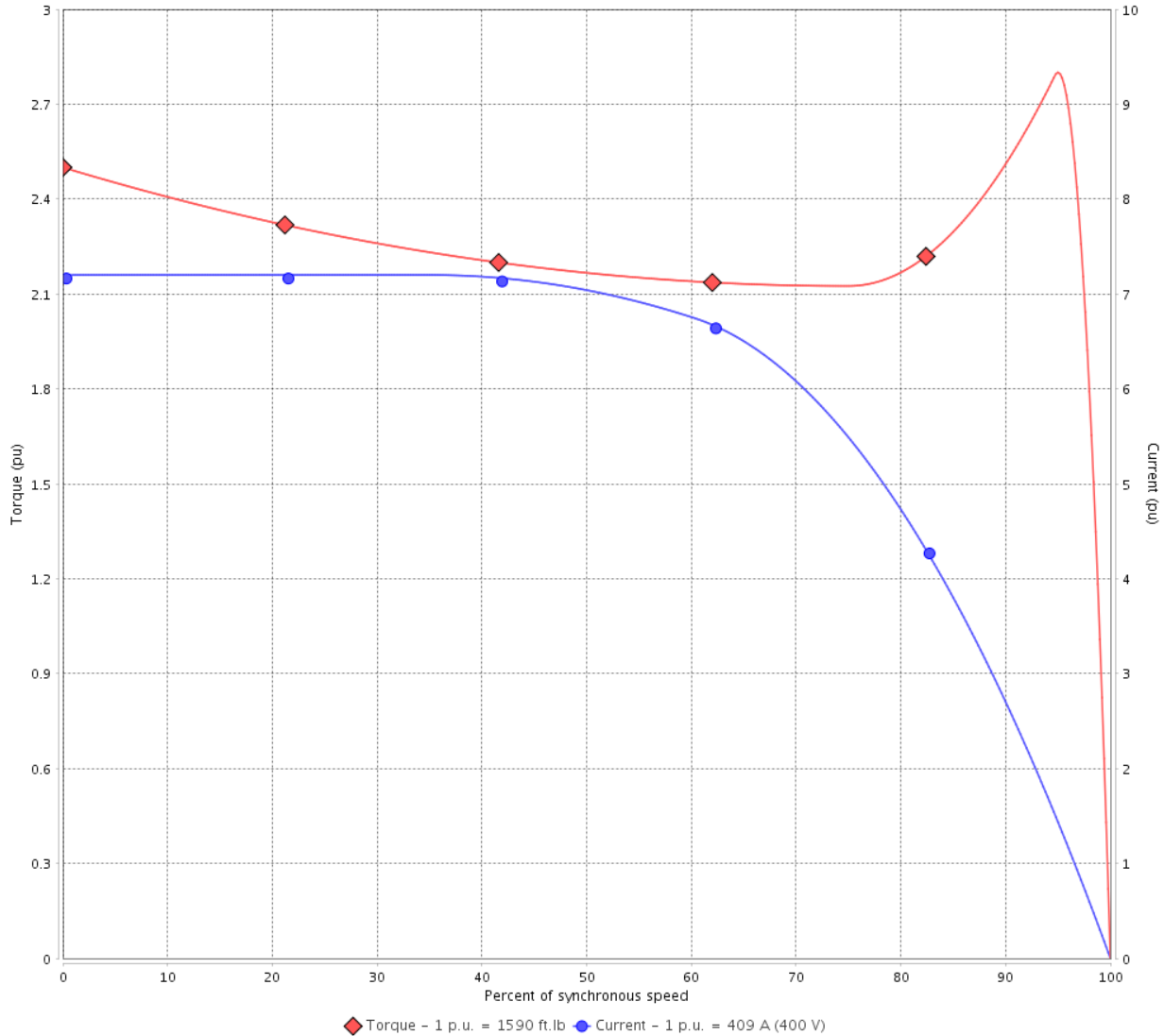
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 11408847

Catalog # : 35012ET3GRB449T-W22

TORQUE AND CURRENT VS SPEED CURVE



Performance : 400 V 50 Hz 6P IE3

Rated current	: 409 A	Moment of inertia (J)	: 278 sq.ft.lb
LRC	: 7.2	Duty cycle	: Cont.(S1)
Rated torque	: 1590 ft.lb	Insulation class	: F
Locked rotor torque	: 250 %	Service factor	: 1.00
Breakdown torque	: 280 %	Temperature rise	: 80 K
Rated speed	: 990 rpm	Design	: A

Locked rotor time : 39s (cold) 22s (hot)

Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page 4 / 21	Revision
Checked by				
Date	13/04/2022			

TORQUE AND CURRENT VS SPEED CURVE



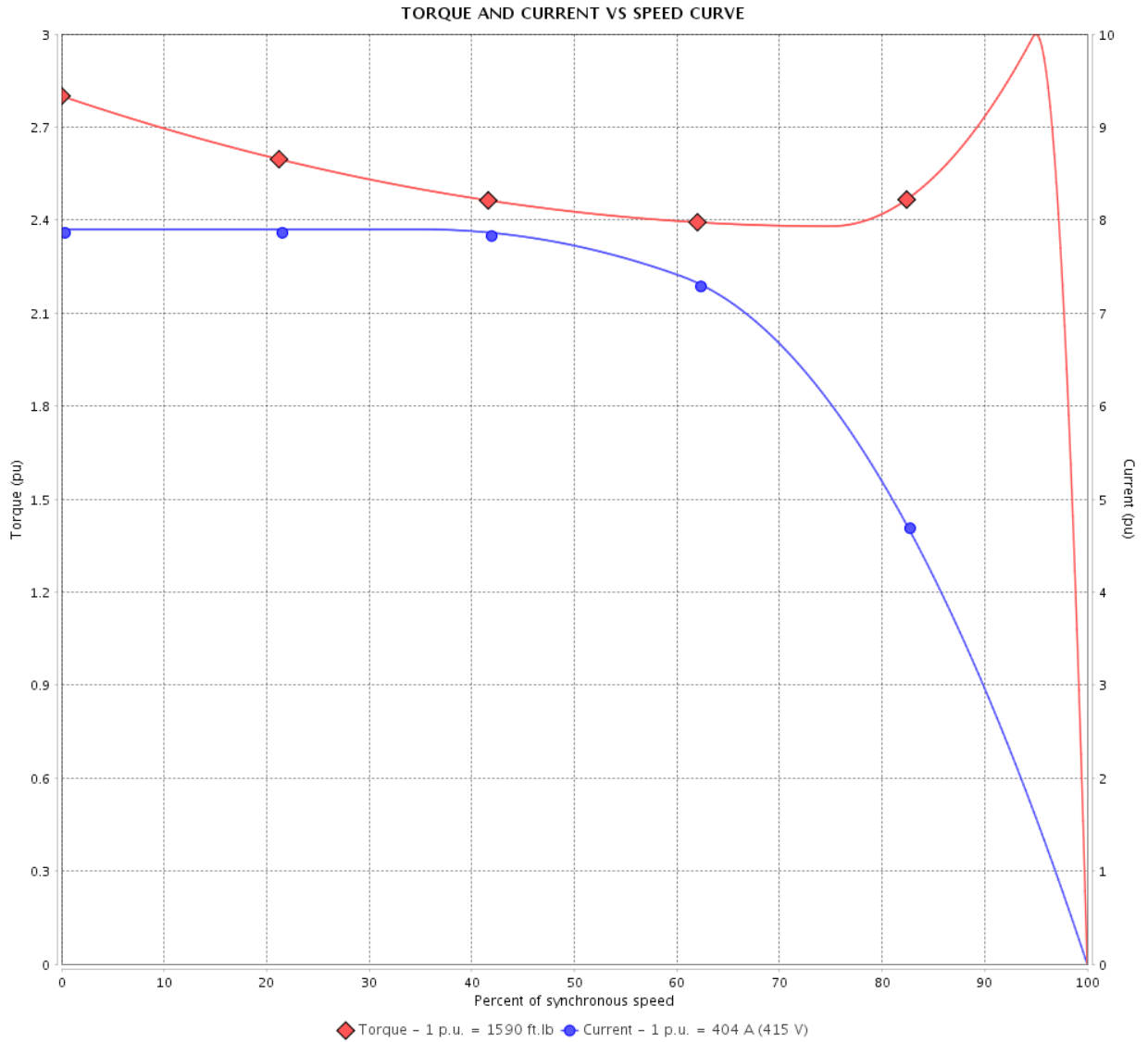
Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 11408847

Catalog # : 35012ET3GRB449T-W22



Performance : 415 V 50 Hz 6P IE3

Rated current	: 404 A	Moment of inertia (J)	: 278 sq.ft.lb
LRC	: 7.9	Duty cycle	: Cont.(S1)
Rated torque	: 1590 ft.lb	Insulation class	: F
Locked rotor torque	: 280 %	Service factor	: 1.00
Breakdown torque	: 300 %	Temperature rise	: 80 K
Rated speed	: 990 rpm	Design	: A

Locked rotor time : 34s (cold) 19s (hot)

Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page 5 / 21	Revision
Checked by				
Date	13/04/2022			

LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage

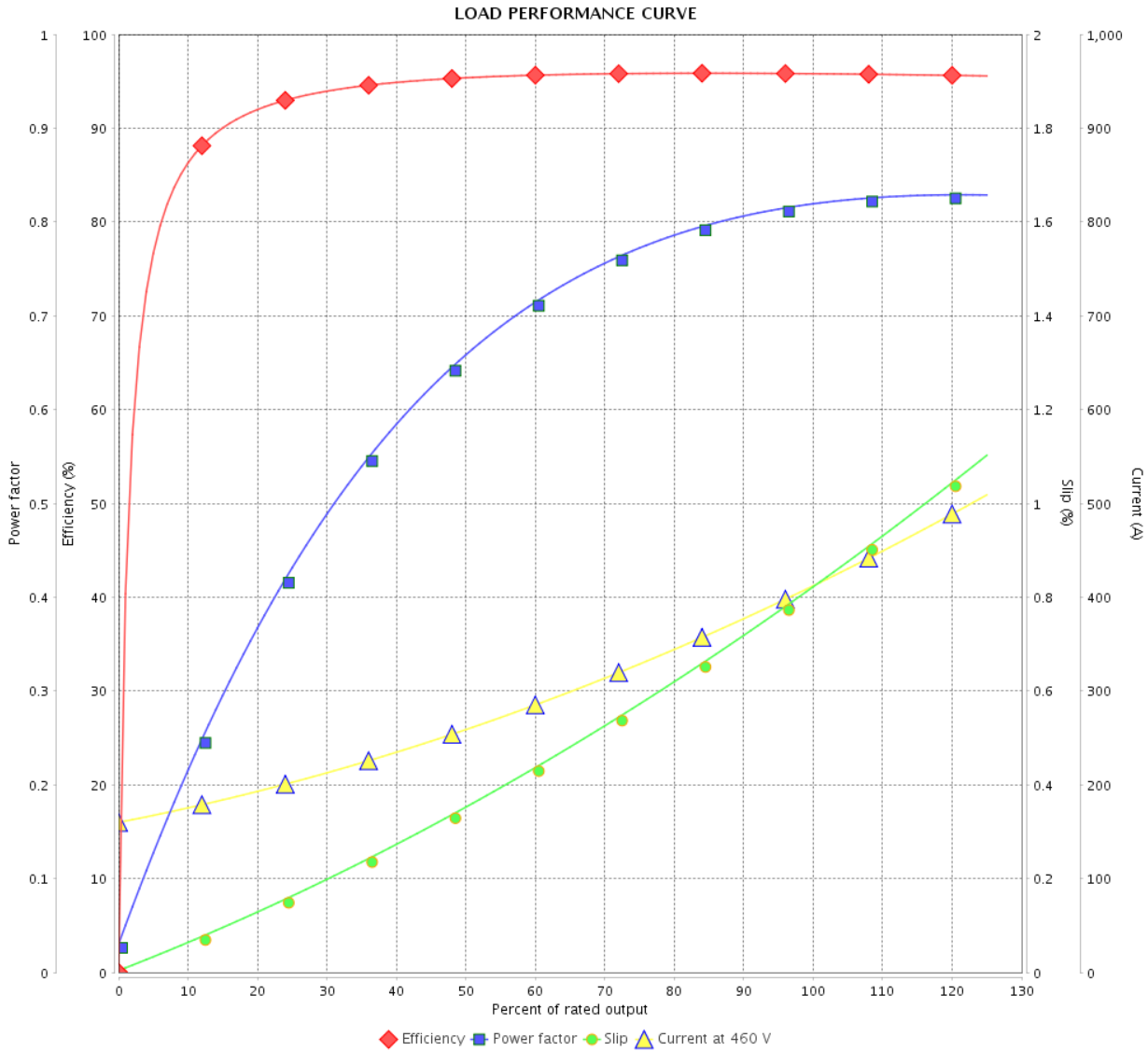


Customer : _____

Product line : NEMA Premium Efficiency Three-Phase

Product code : 11408847

Catalog # : 35012ET3GRB449T-W22



Performance : 460 V 60 Hz 6P

Rated current : 415 A
 LRC : 6.9
 Rated torque : 1540 ft.lb
 Locked rotor torque : 250 %
 Breakdown torque : 270 %
 Rated speed : 1190 rpm

Moment of inertia (J) : 278 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.15
 Temperature rise : 80 K
 Design : A

Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page 6 / 21	Revision
Checked by				
Date	13/04/2022			

LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage

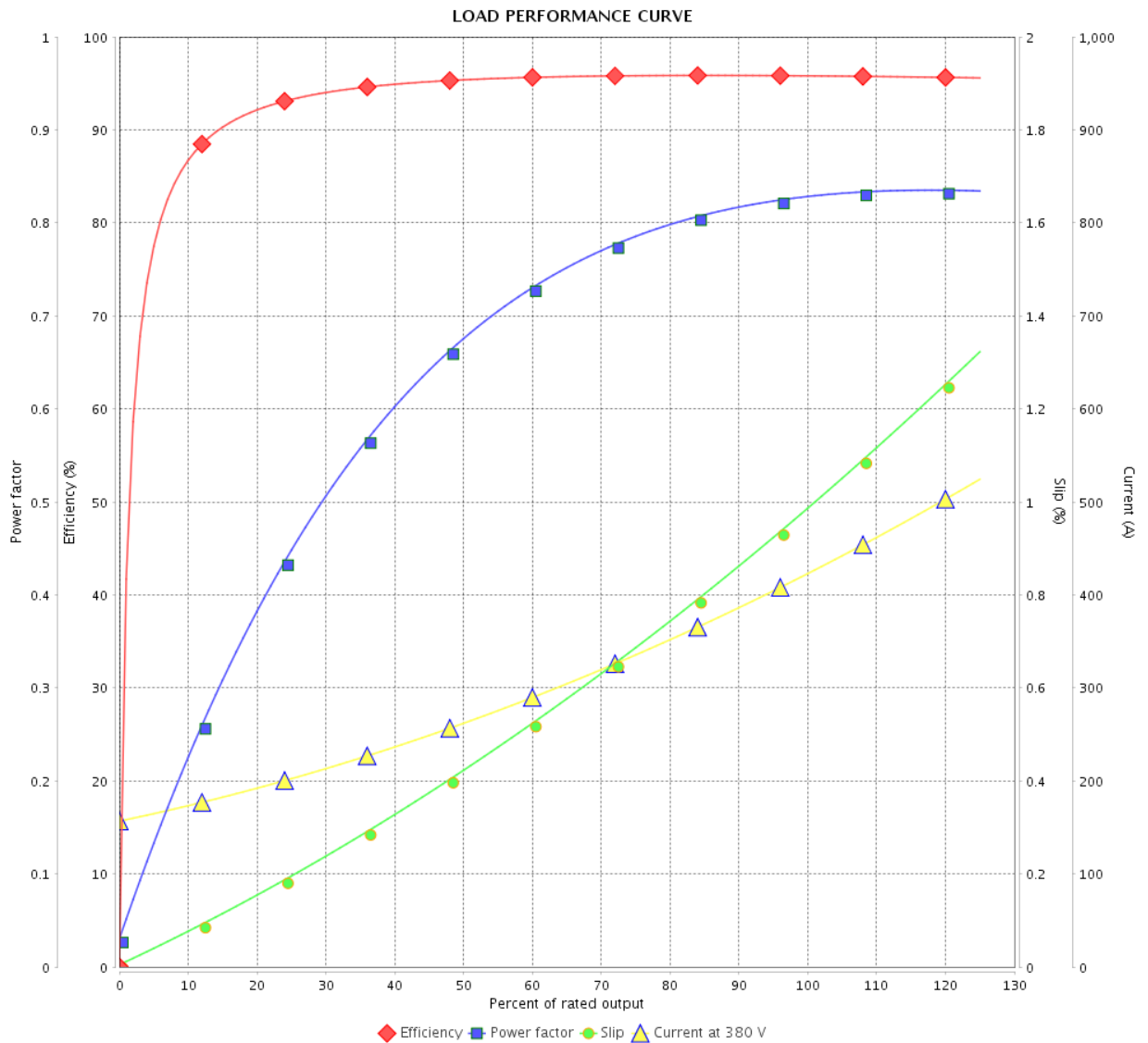


Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 11408847

Catalog # : 35012ET3GRB449T-W22



Performance : 380 V 50 Hz 6P IE3

Rated current : 420 A
 LRC : 6.5
 Rated torque : 1590 ft.lb
 Locked rotor torque : 220 %
 Breakdown torque : 250 %
 Rated speed : 990 rpm

Moment of inertia (J) : 278 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : A

Rev.	Changes Summary	Performed	Checked	Date
Performed by				
Checked by				
Date				
		Page	Revision	
		7 / 21		

LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage



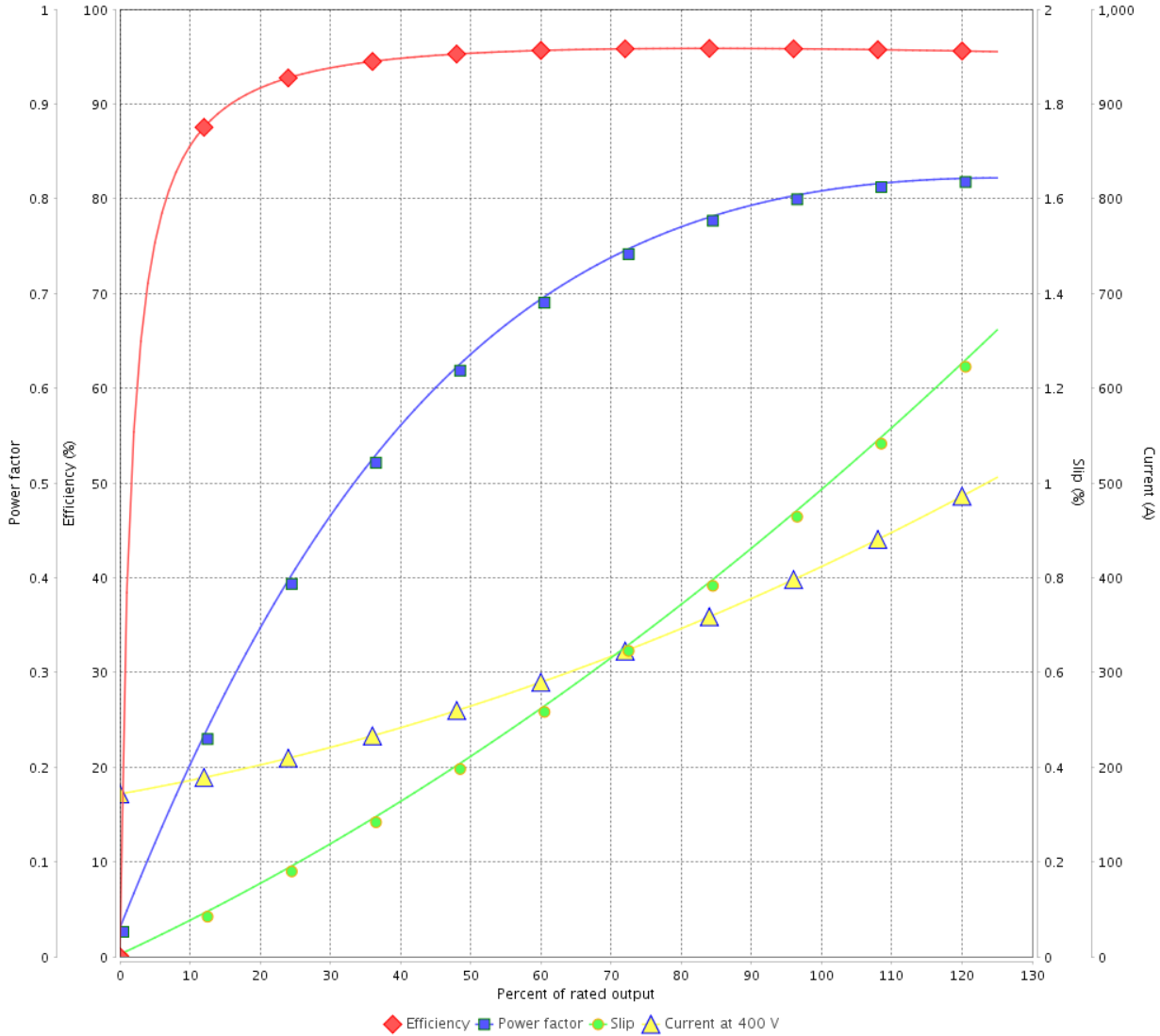
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 11408847

Catalog # : 35012ET3GRB449T-W22

LOAD PERFORMANCE CURVE



Performance : 400 V 50 Hz 6P IE3

Rated current : 409 A
 LRC : 7.2
 Rated torque : 1590 ft.lb
 Locked rotor torque : 250 %
 Breakdown torque : 280 %
 Rated speed : 990 rpm

Moment of inertia (J) : 278 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : A

Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page	Revision
Checked by				
Date	13/04/2022			
			8 / 21	

LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage

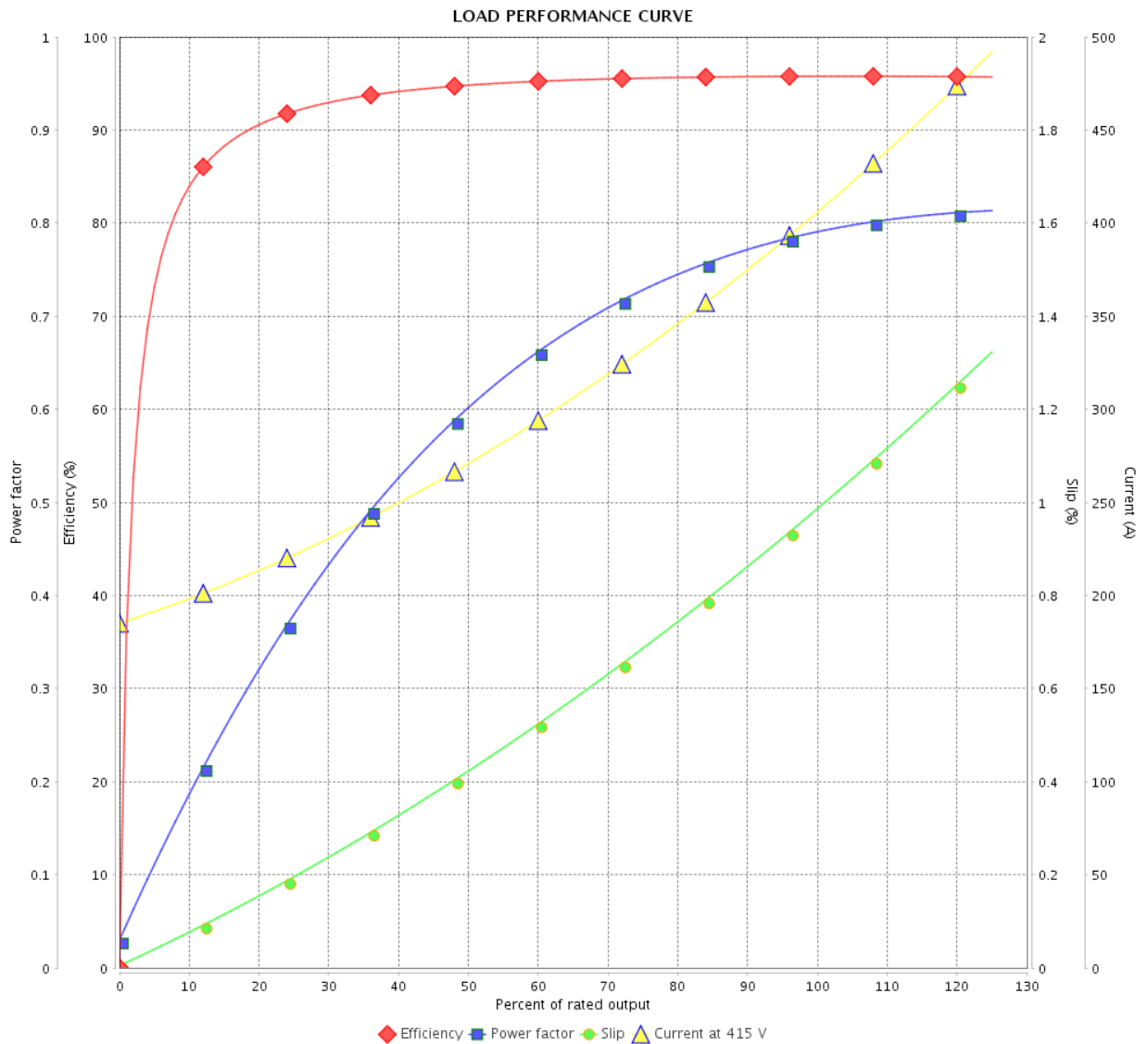


Customer : _____

Product line : NEMA Premium Efficiency Three-Phase

Product code : 11408847

Catalog # : 35012ET3GRB449T-W22



Performance : 415 V 50 Hz 6P IE3

Rated current : 404 A
 LRC : 7.9
 Rated torque : 1590 ft.lb
 Locked rotor torque : 280 %
 Breakdown torque : 300 %
 Rated speed : 990 rpm

Moment of inertia (J) : 278 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : A

Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page	Revision
Checked by				
Date				

THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : NEMA Premium Efficiency Three-Phase
Product code : 11408847
Catalog # : 35012ET3GRB449T-W22

Performance : 460 V 60 Hz 6P

Rated current	: 415 A	Moment of inertia (J)	: 278 sq.ft.lb
LRC	: 6.9	Duty cycle	: Cont.(S1)
Rated torque	: 1540 ft.lb	Insulation class	: F
Locked rotor torque	: 250 %	Service factor	: 1.15
Breakdown torque	: 270 %	Temperature rise	: 80 K
Rated speed	: 1190 rpm	Design	: A

Heating constant

Cooling constant

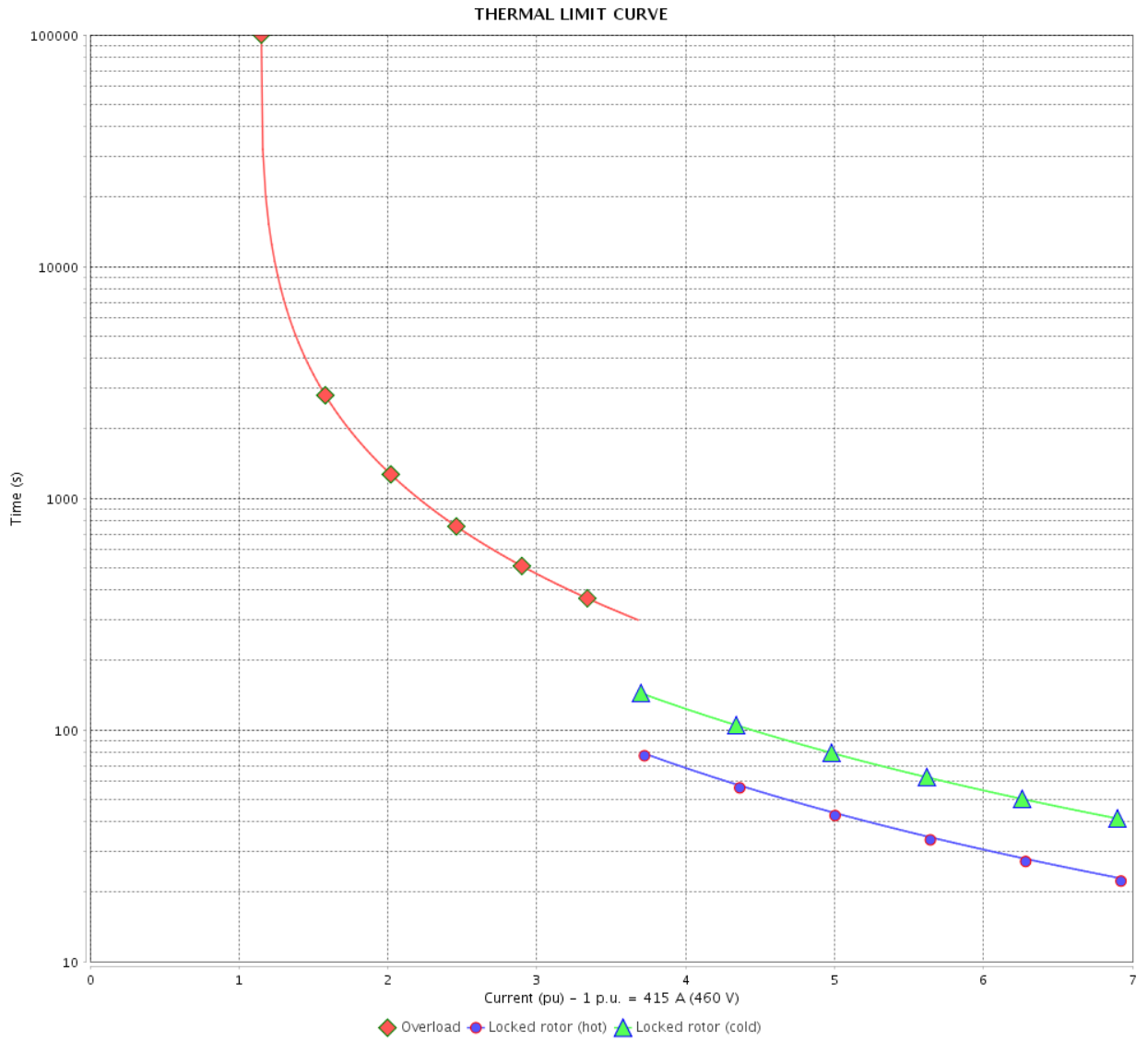
Rev.	Changes Summary	Performed	Checked	Date
Performed by				
Checked by			Page	Revision
Date	13/04/2022		10 / 21	

THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



Customer : _____



Rev.	Changes Summary	Performed	Checked	Date
Performed by		Page		Revision
Checked by		11 / 21		
Date		13/04/2022		

THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : NEMA Premium Efficiency Three-Phase
Product code : 11408847
Catalog # : 35012ET3GRB449T-W22

Performance : 380 V 50 Hz 6P IE3

Rated current	: 420 A	Moment of inertia (J)	: 278 sq.ft.lb
LRC	: 6.5	Duty cycle	: Cont.(S1)
Rated torque	: 1590 ft.lb	Insulation class	: F
Locked rotor torque	: 220 %	Service factor	: 1.00
Breakdown torque	: 250 %	Temperature rise	: 80 K
Rated speed	: 990 rpm	Design	: A

Heating constant

Cooling constant

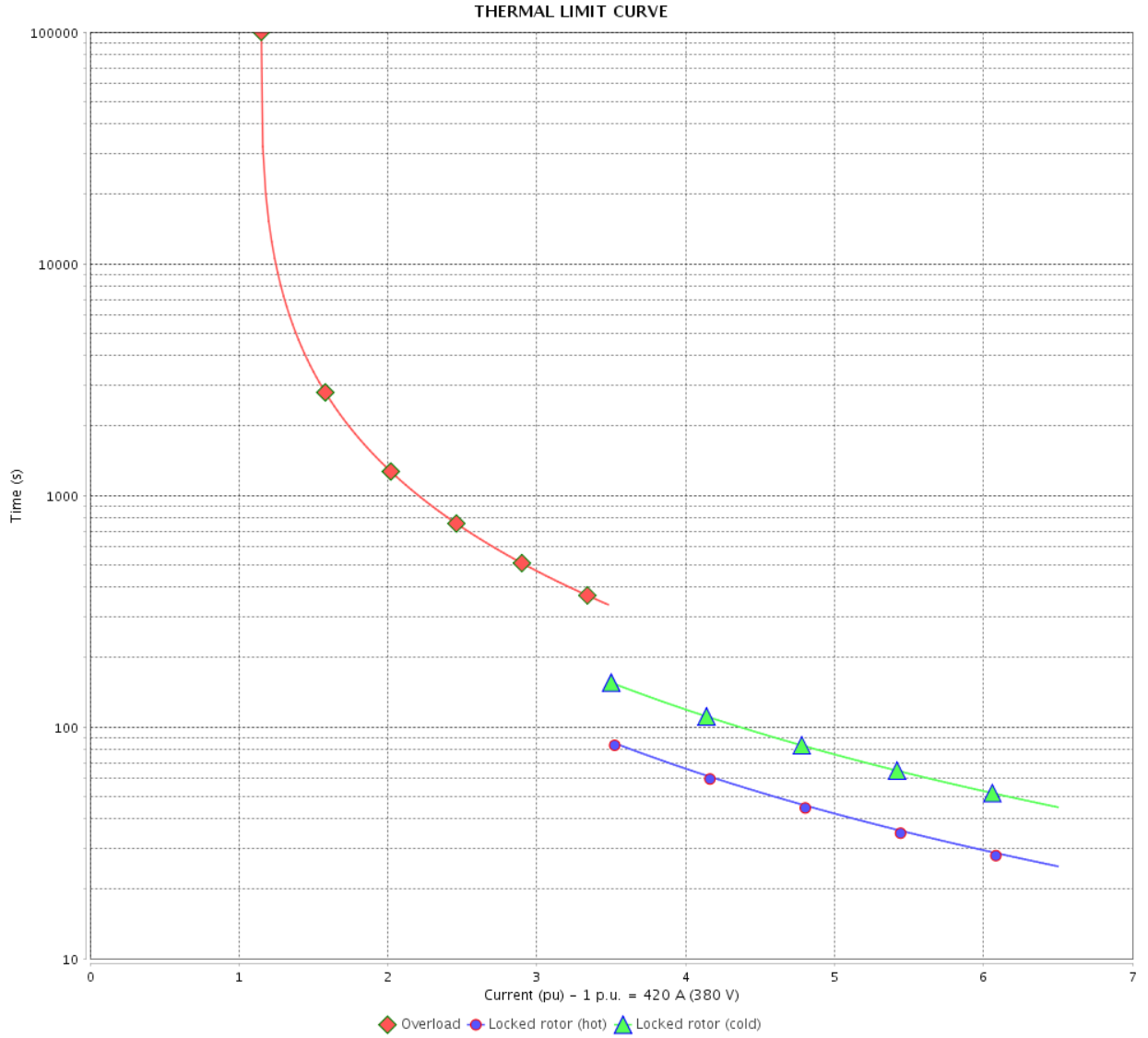
Rev.	Changes Summary	Performed	Checked	Date
Performed by				
Checked by			Page	Revision
Date	13/04/2022		12 / 21	

THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



Customer : _____



Rev.	Changes Summary	Performed	Checked	Date
Performed by		Page 13 / 21		Revision
Checked by				
Date				

THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : NEMA Premium Efficiency Three-Phase
Product code : 11408847
Catalog # : 35012ET3GRB449T-W22

Performance : 400 V 50 Hz 6P IE3

Rated current	: 409 A	Moment of inertia (J)	: 278 sq.ft.lb
LRC	: 7.2	Duty cycle	: Cont.(S1)
Rated torque	: 1590 ft.lb	Insulation class	: F
Locked rotor torque	: 250 %	Service factor	: 1.00
Breakdown torque	: 280 %	Temperature rise	: 80 K
Rated speed	: 990 rpm	Design	: A

Heating constant

Cooling constant

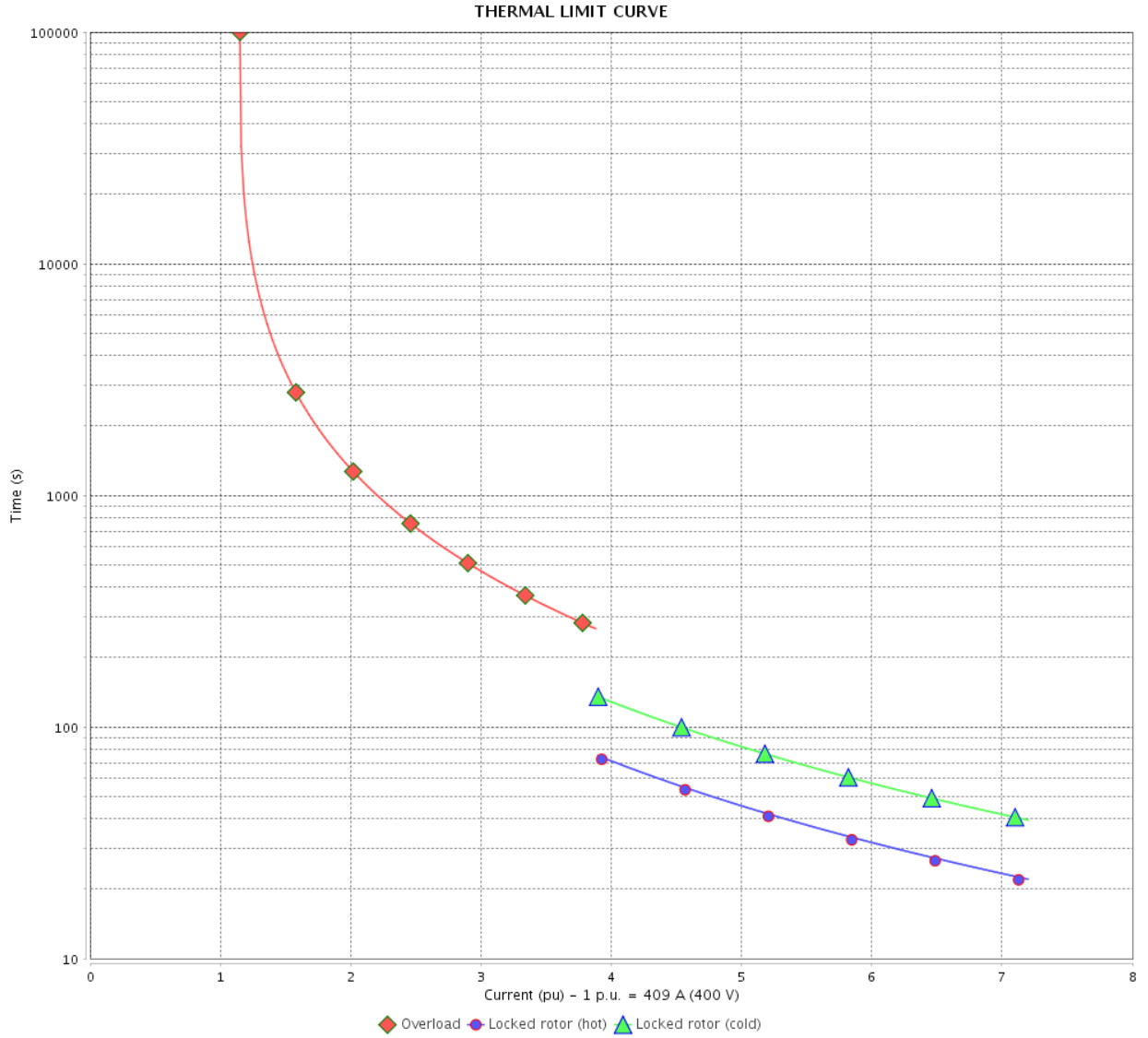
Rev.	Changes Summary	Performed	Checked	Date
Performed by				
Checked by			Page	Revision
Date	13/04/2022		14 / 21	

THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



Customer : _____



Rev.	Changes Summary	Performed	Checked	Date
Performed by		Page 15 / 21		Revision
Checked by				
Date				

THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : NEMA Premium Efficiency Three-Phase
Product code : 11408847
Catalog # : 35012ET3GRB449T-W22

Performance : 415 V 50 Hz 6P IE3

Rated current	: 404 A	Moment of inertia (J)	: 278 sq.ft.lb
LRC	: 7.9	Duty cycle	: Cont.(S1)
Rated torque	: 1590 ft.lb	Insulation class	: F
Locked rotor torque	: 280 %	Service factor	: 1.00
Breakdown torque	: 300 %	Temperature rise	: 80 K
Rated speed	: 990 rpm	Design	: A

Heating constant

Cooling constant

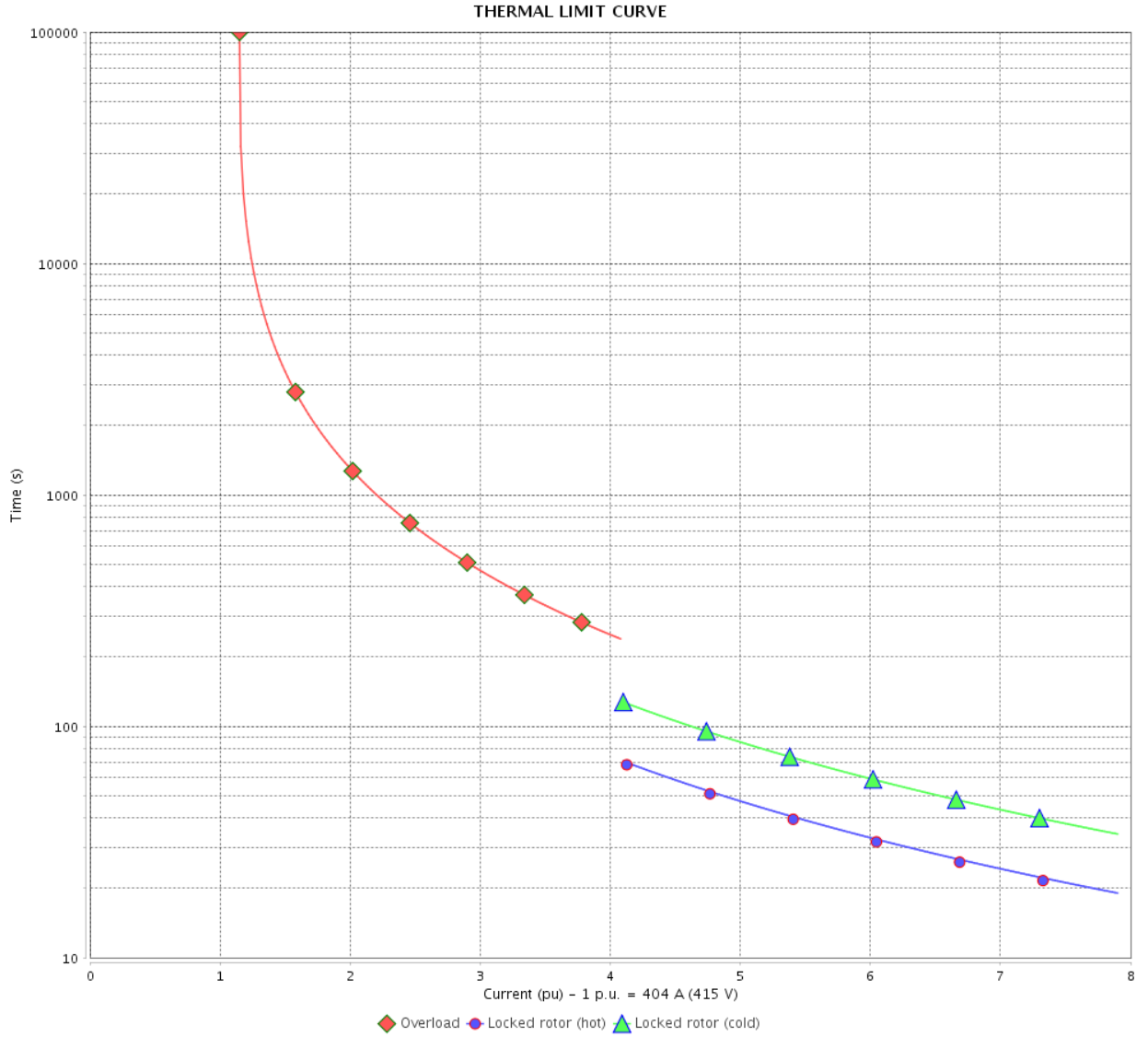
Rev.	Changes Summary	Performed	Checked	Date
Performed by				
Checked by			Page	Revision
Date	13/04/2022		16 / 21	

THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



Customer : _____



Rev.	Changes Summary	Performed	Checked	Date
Performed by		Page 17 / 21		Revision
Checked by				
Date				

VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

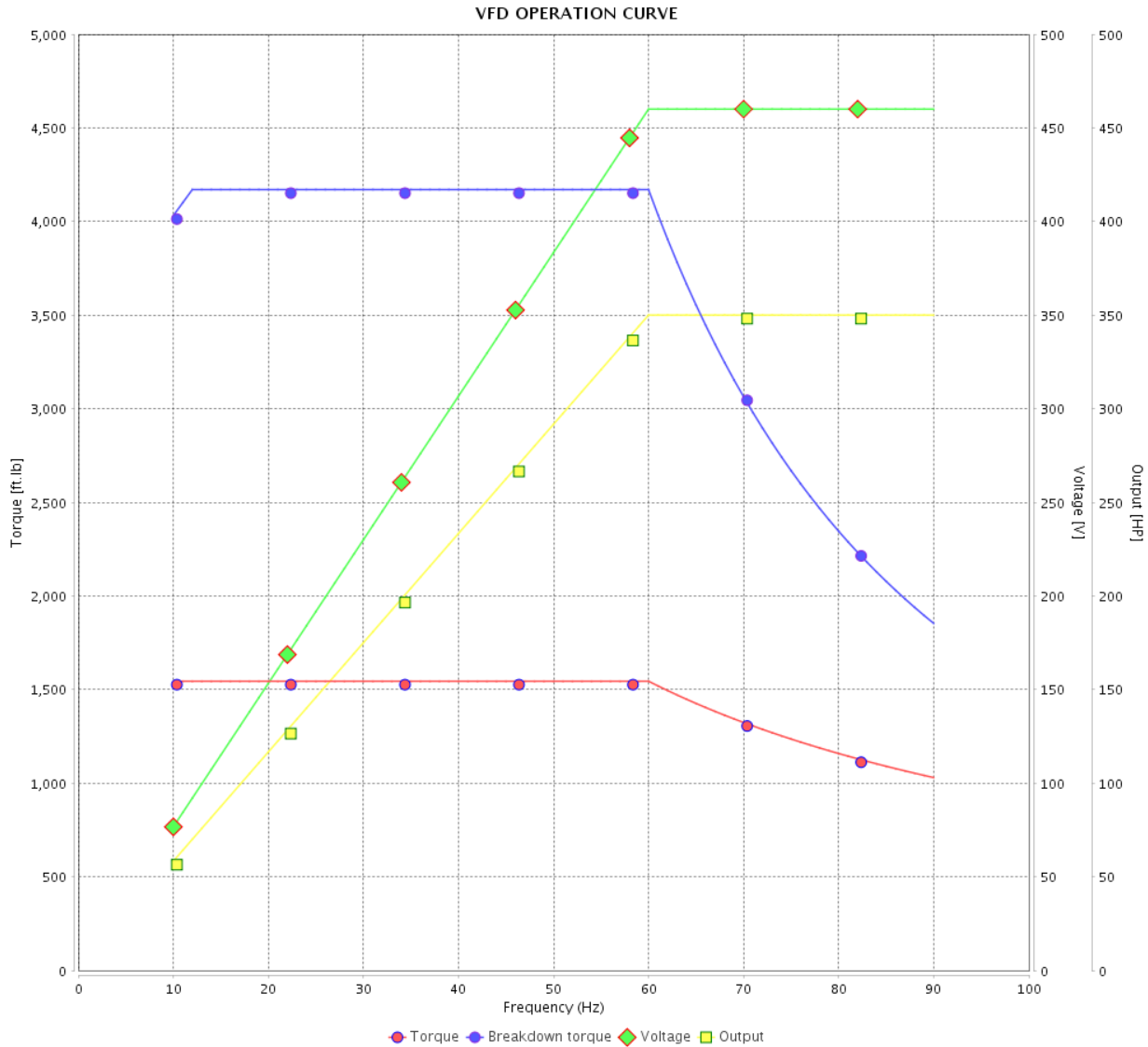


Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 11408847

Catalog # : 35012ET3GRB449T-W22



Performance : 460 V 60 Hz 6P

Rated current : 415 A
 LRC : 6.9
 Rated torque : 1540 ft.lb
 Locked rotor torque : 250 %
 Breakdown torque : 270 %
 Rated speed : 1190 rpm

Moment of inertia (J) : 278 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.15
 Temperature rise : 80 K
 Design : A

Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page 18 / 21	Revision
Checked by				
Date	13/04/2022			

VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

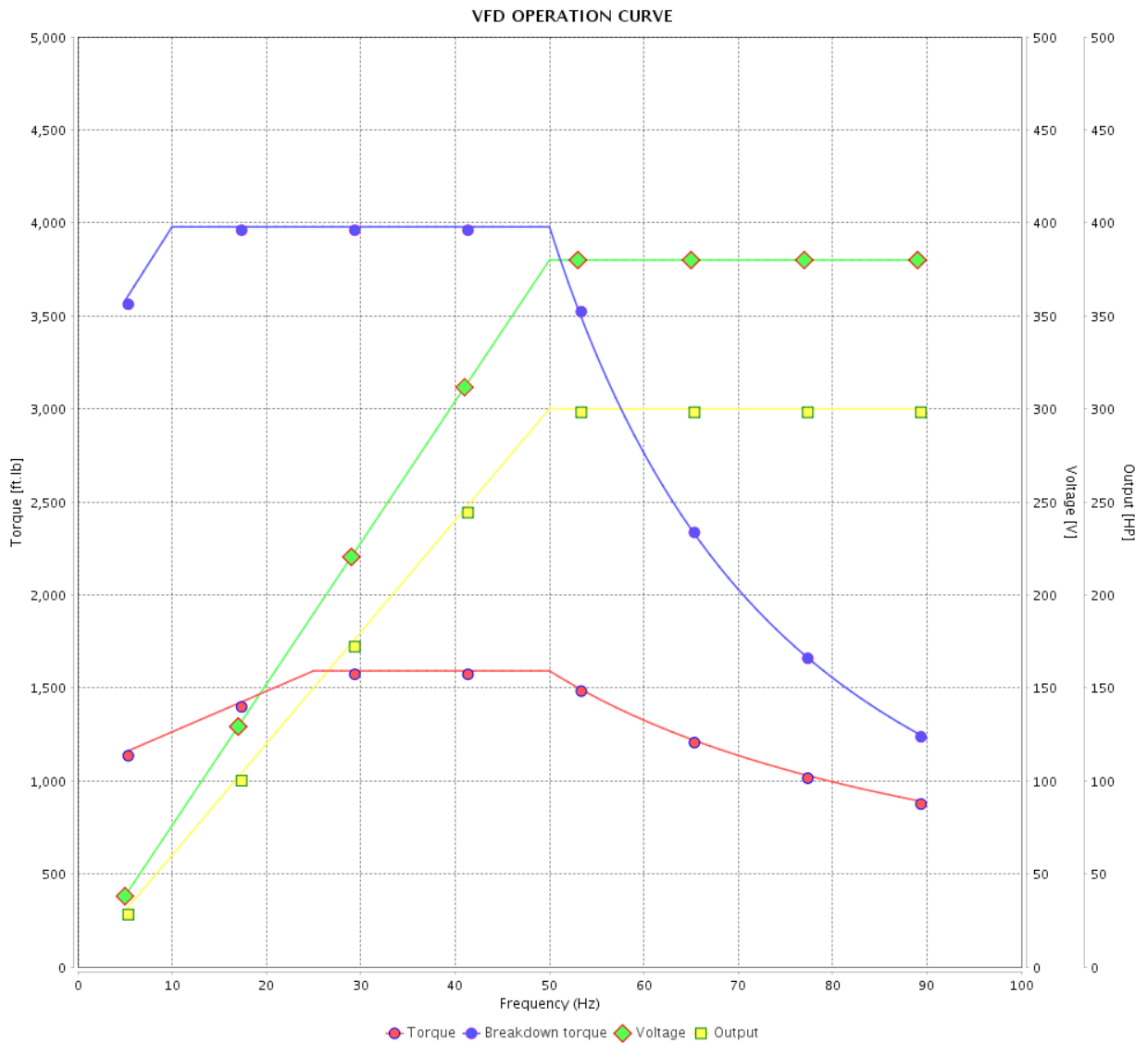


Customer : _____

Product line : NEMA Premium Efficiency Three-Phase

Product code : 11408847

Catalog # : 35012ET3GRB449T-W22



Performance : 380 V 50 Hz 6P IE3

Rated current : 420 A
 LRC : 6.5
 Rated torque : 1590 ft.lb
 Locked rotor torque : 220 %
 Breakdown torque : 250 %
 Rated speed : 990 rpm

Moment of inertia (J) : 278 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : A

Rev.	Changes Summary	Performed	Checked	Date
Performed by				Page 19 / 21
Checked by				
Date	13/04/2022			

VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

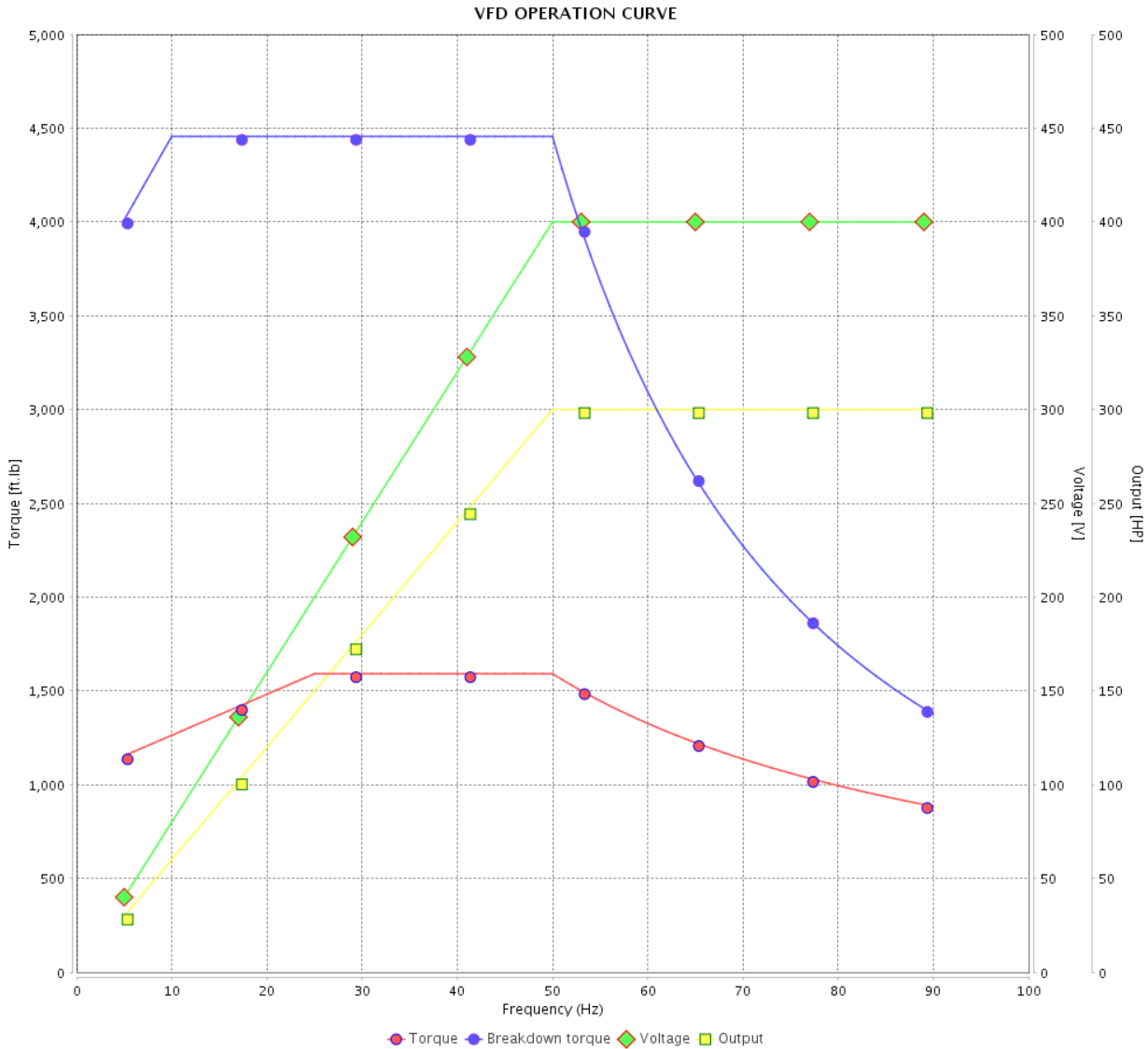


Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 11408847

Catalog # : 35012ET3GRB449T-W22



Performance : 400 V 50 Hz 6P IE3

Rated current : 409 A
 LRC : 7.2
 Rated torque : 1590 ft.lb
 Locked rotor torque : 250 %
 Breakdown torque : 280 %
 Rated speed : 990 rpm

Moment of inertia (J) : 278 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : A

Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page	Revision
Checked by				
Date				

VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

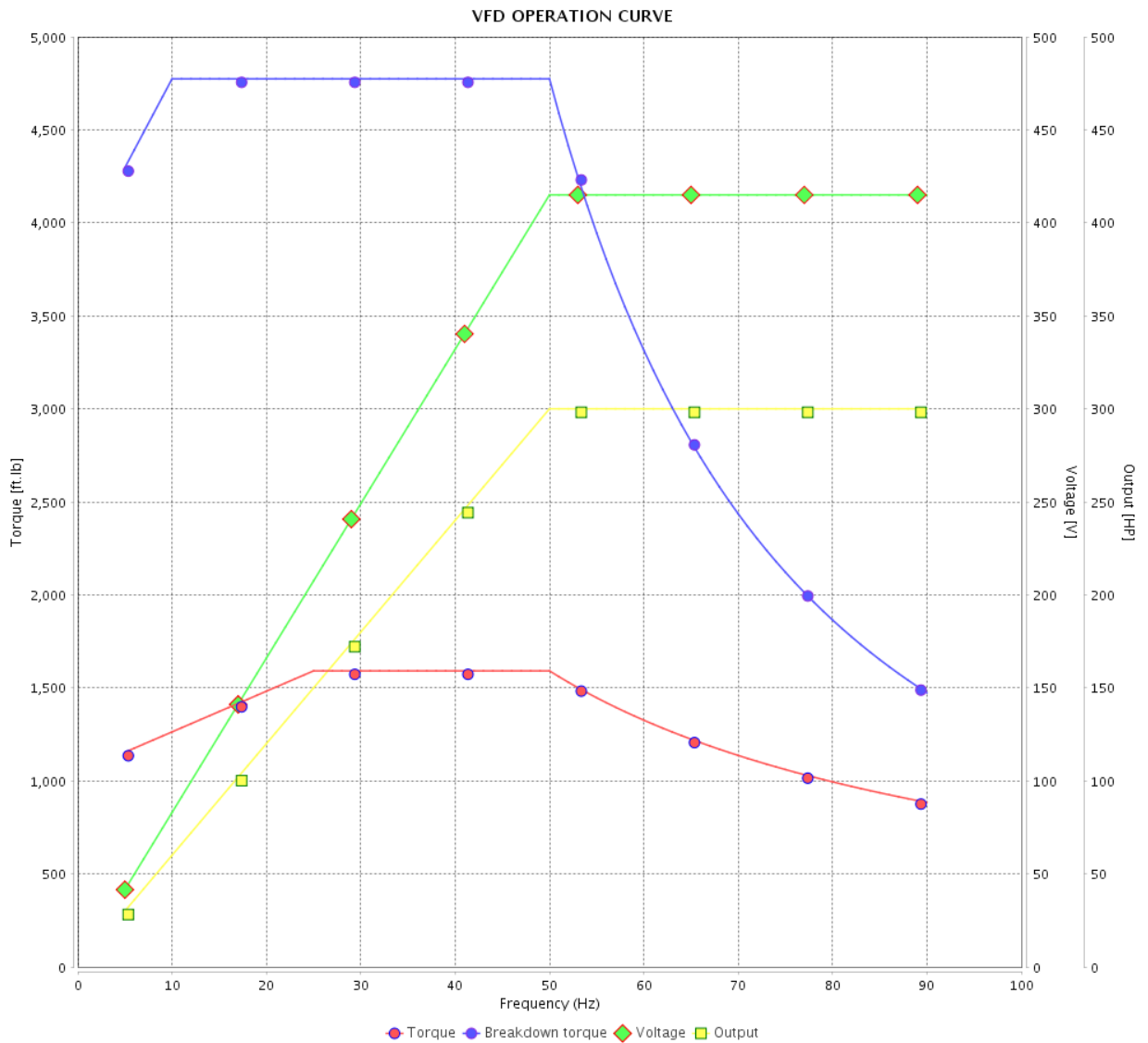


Customer : _____

Product line : NEMA Premium Efficiency Three-Phase

Product code : 11408847

Catalog # : 35012ET3GRB449T-W22



Performance : 415 V 50 Hz 6P IE3

Rated current : 404 A
 LRC : 7.9
 Rated torque : 1590 ft.lb
 Locked rotor torque : 280 %
 Breakdown torque : 300 %
 Rated speed : 990 rpm

Moment of inertia (J) : 278 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : A

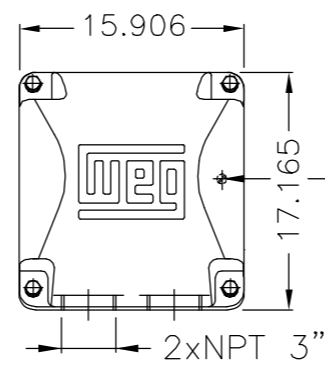
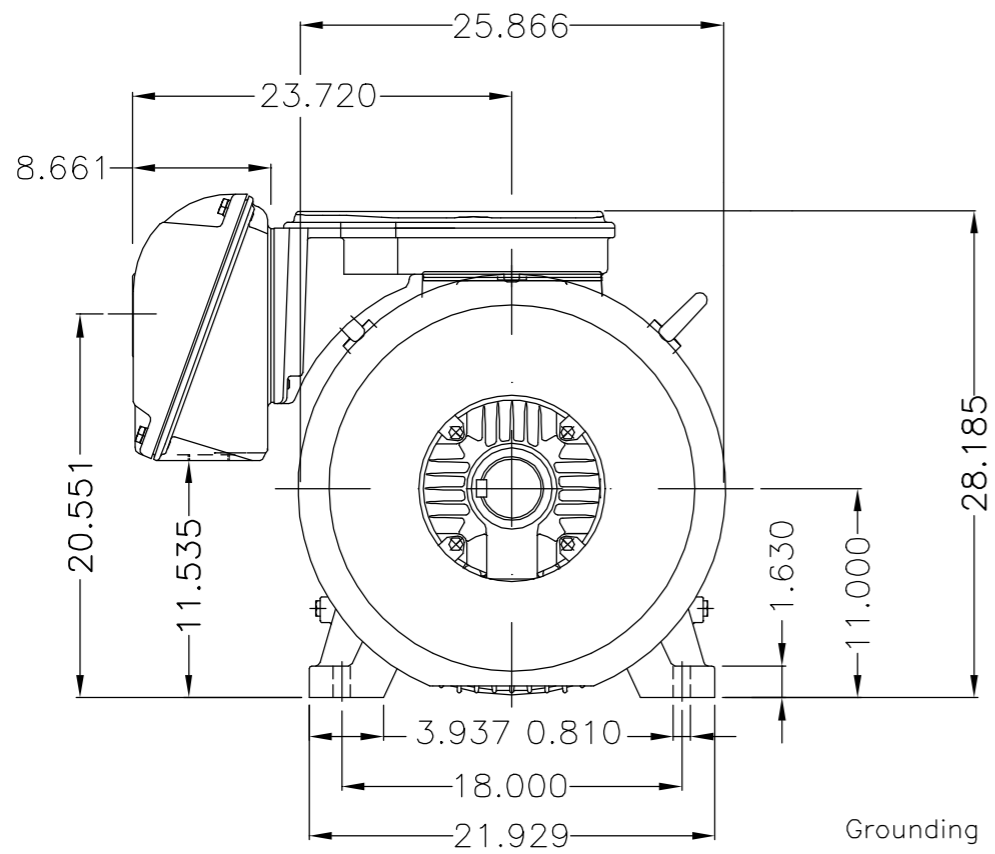
Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page	Revision
Checked by				
Date				

EIXO/SHAFT	
PADRÃO/STANDARD	X
OPCIONAL/OPTIONAL	
ESPECIAL/SPECIAL	

Dimensões em polegada
Dimensions in inches

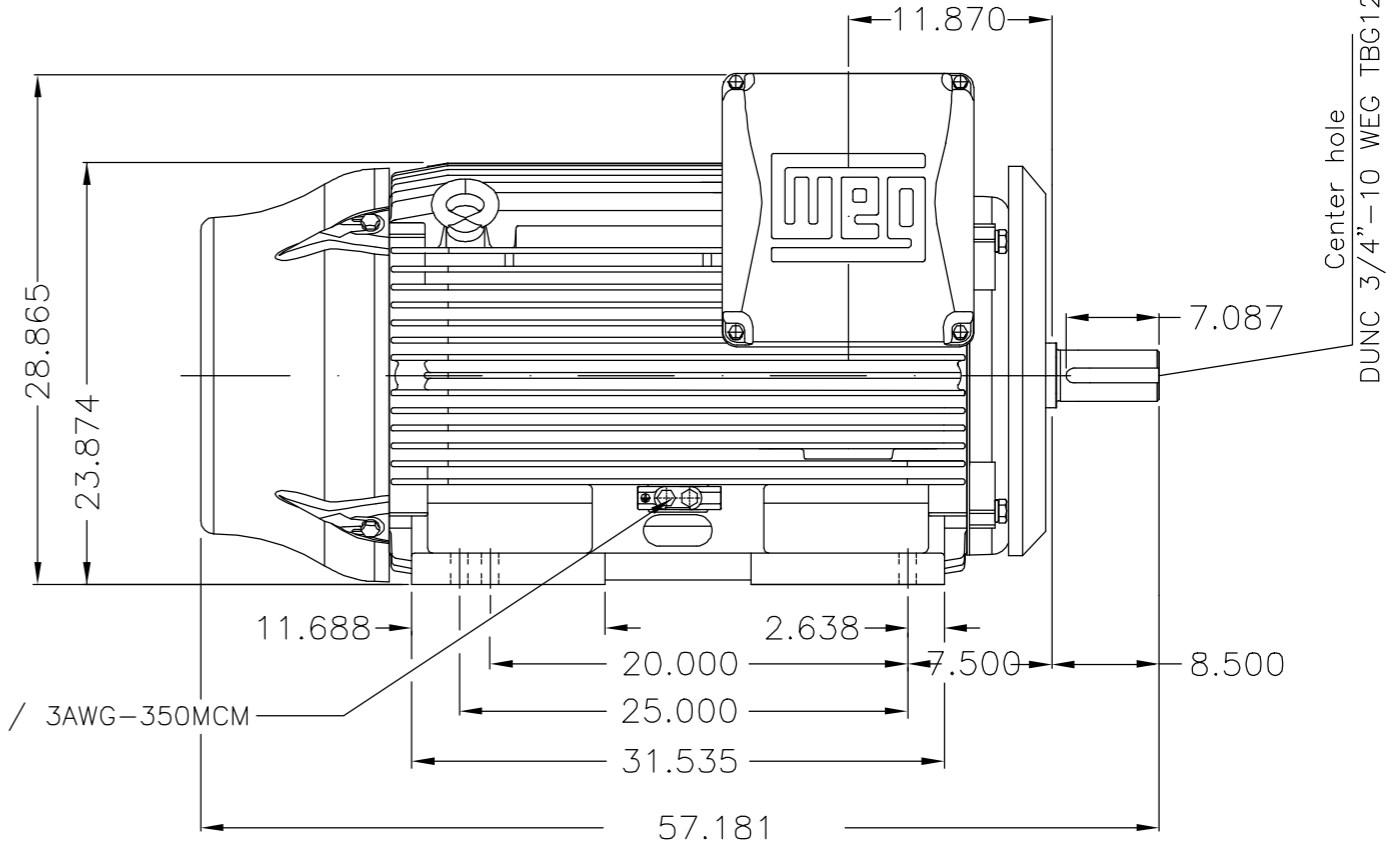
THIS IS AN UPDATED REVISION, THE PREVIOUS ONE MUST BE DISREGARDED.

A
B
C
D
E

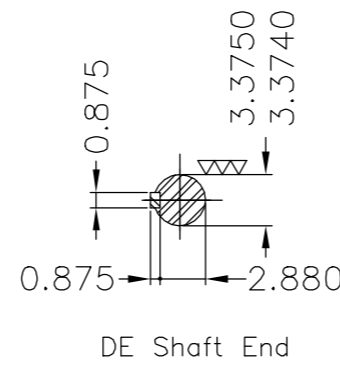
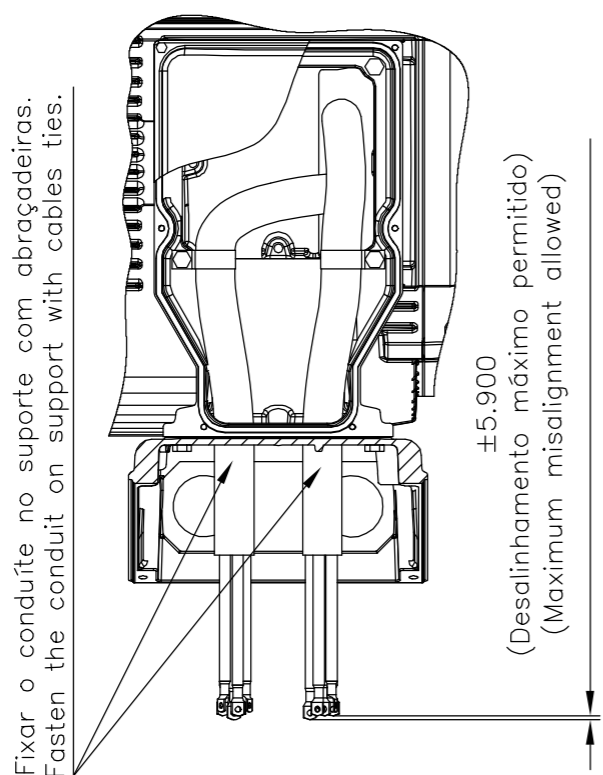


Main terminal box

Grounding for leads 35-70 mm² / 1-2/0 AWG



Grounding for leads 25-185 mm² / 3AWG-350MCM



DE Shaft End

Defletor de ar dianteiro / Drive-End Air Deflector
Rolamento dianteiro de rolos / DE roller bearing
Conduite para cabos no interior do suporte da caixa de ligação
Cables conduit inside terminal box support
Dispositivo de travamento de eixo / Shaft locking device
Linha do motor: Crusher Duty / Motor purpose: Crusher Duty
Tampa traseira com mancal eletricamente isolado
NDE endshield with electrically insulated bearing hub
Cor RAL 5009 / Color RAL 5009
Plano de pintura 203A / Painting plan 203A
Forma construtiva B3D / Mounting B3R(D)

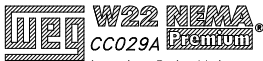
WEG EQUIPAMENTOS ELÉTRICOS S/A

500001731403	ALTERADO CFME CLAIM 417220375	SCATOLIN	DALTONR	DALTONR	28.02.2020	05			
500001473490	ALTERADO CONFORME CLAIM 415116242	PKREYSSIG	CLEBERP	CLEBERP	09.07.2018	04			
ECM	LOC	SUMMARY OF MODIFICATIONS			EXECUTED	CHECKED	RELEASED	DATE	VER
EXECUTED	GABRIELID	THREE PHASE W22 MOTOR		10004946483					
CHECKED	JMANENTE	FRAME L447/9T IP55 TEFC		000 05					
RELEASED	JMANENTE								
REL DT	23.05.2017	WMO	Jaragua do Sul	Product Engineering	SHEET	1 / 1			

350 HP	06 Poles	60Hz	414668751
450 HP	04 Poles	60Hz	414668751
400 HP	04 Poles	60Hz	414668751



MODEL 35012ET3GRB49T-W22
MADE IN BRAZIL
11408847



*Inverter Duty Motor
Severe Duty*



FOR SAFE AREA
MOD.TE1BFOXON



Class I, Div 2, Gr. A, B, C and D - T3
Class I, Zone 2, IIC - T3
Class II, Div 2, Gr. F and G - T3C
For use on PWM, Gr. A, B, C and D,
VT 1000:1, CT 6:1, 1.0SF, T2B

PH 3	FR L447/9T	HP(kW) 350(260)		Hz 60		PART-WINDING START			PART-WINDING RUN			WYE-DELTA START			WYE-DELTA RUN		
V 460		A 415		IP55		○T12	○T10	○T11	○T12	○T10	○T11	○T12	○T10	○T11	○T12	○T10	○T11
						○T7	○T8	○T9	○T7	○T8	○T9	○T6	○T4	○T5	○T6	○T4	○T5
						○T6	○T4	○T5	○T6	○T4	○T5	○T7	○T8	○T9	○T7	○T8	○T9
						○T1	○T2	○T3	○T1	○T2	○T3	○T1	○T2	○T3	○T1	○T2	○T3
						L1	L2	L3	L1	L2	L3	L1	L2	L3	L1	L2	L3
NEMA NOM EFF		95.8 %		RPM 1190													
ENCL TEFC		DUTY CONT.		INS. CL. F ΔT K													
PF 0.82		DES A		CODE H		AMB. 40°C		→ NU-322-C3 (60g)			MOBIL POLYREX EM						
								→ 6319-C3 (45g)			7000 h						
SF 1.15		SFA 477		ALT 1000 m.a.s.l.		3635 Lbs											